IN THE CLAIMS

Claims 1-7 (cancelled).

8. (currently amended) A system for caching attribute data for use with a translation look aside buffer, comprising:

a TLB for storing a plurality of TLB (translation look aside buffer) entries for ~~the~~ virtual address to physical address translations, wherein the TLB entries include respective attributes; and

an attribute cache coupled to the TLB, the attribute cache for storing a plurality of attribute entries and for providing a selected attribute entry when the selected attribute entry is not stored in the TLB.

9. (currently amended) The system of claim 8, further comprising:

a page table for performing an attribute lookup to obtain the selected attribute entry when the selected attribute entry is not stored in the attribute cache.

10. (currently amended) The system of claim 9, wherein the attribute cache is configured to support speculative attribute lookups to obtain a ~~corresponding~~ resulting plurality of attribute entries, wherein the plurality of attribute entries are stored into the attribute cache to service a subsequent access when a subsequent attribute is not stored in the TLB.

11. (currently amended) The system of claim 8 wherein the <u>plurality</u> <u>of</u> attribute entries of the attribute cache are indexed with physical addresses.

12. (original) The system of claim 8 wherein at least one attribute entry indicates that the physical page is write-protected.

13. (currently amended) The system of claim 8 wherein at least one attribute entry indicates that ~~the~~ data associated with the physical address is cacheable.

14. (currently amended) The system of claim 8 wherein at least one attribute entry indicates that ~~the~~ data associated with the physical address is cached in an alternate caching system.

15. (currently amended) A TLB (translation look aside buffer) having an attribute cache for caching attribute data for use with a translation look aside buffer, the TLB storing a plurality of TLB entries for ~~the~~ virtual address to physical address translations, wherein the <u>TLB</u> entries include respective attributes, wherein the attribute cache stores a plurality of

attribute entries and provides a selected attribute entry when the <u>selected</u> attribute entry is not stored in the TLB.

16. (currently amended) The TLB of claim 15, wherein the TLB is configured to access a page table for performing an attribute lookup to obtain the <u>selected</u> attribute entry when the <u>selected</u> attribute entry is not stored in the attribute cache.

17. (currently amended) The TLB of claim 15, wherein the attribute cache is configured to support speculative attribute lookups to obtain a ~~corresponding~~ <u>resulting</u> plurality of attribute entries, wherein the plurality of attribute entries are stored into the attribute cache to service a subsequent access when a subsequent attribute is not stored in the TLB.

18. (currently amended) The TLB of claim 15 wherein the <u>plurality of</u> attribute entries of the attribute cache are indexed with physical addresses.

19. (currently amended) The TLB of claim 15 wherein at least one attribute entry indicates that ~~the~~ <u>a</u> physical page is write-protected.

20. (currently amended) The TLB of claim 15 wherein at least one attribute entry indicates that ~~the~~ data associated with ~~the~~ a physical address is cacheable.

21. (currently amended) The TLB of claim 15 wherein at least one attribute entry indicates ~~the~~ data associated with ~~the~~ a physical address is cached in an alternate caching system.

22. (currently amended) A computer readable media for caching attribute data for use with a translation look aside buffer, the media storing computer readable code which when executed by a processor causes the processor to implement a method comprising:

storing a plurality of TLB (translation look aside buffer) entries for the virtual address to physical address translations, wherein the TLB entries include respective attributes; and

storing a plurality of attribute entries in an attribute cache, the attribute cache configured to provide at least one attribute entry when the attribute entry is not stored in ~~the~~ a TLB.

23. (currently amended) The computer readable media of claim 22, wherein the attribute cache is configured ~~as an attribute cache configured~~ to provide the attribute entry when the entry is not stored in the TLB.

24. (currently amended) The computer readable media of claim 22, further comprising:

performing an attribute lookup to obtain the attribute entry when the attribute is not stored in the attribute cache;

storing the attribute entry into the TLB; and

storing the attribute entry into the attribute cache